TECHNICAL
MEMORANDUM

(TM Series)

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1604 Simulation Program Descriptions Milestone 11	SYSTEM
Simulation Reset Routine (SIMRESET)	DEVELOPMENT
	CORPORATION
by P. T. Kastama	2500 COLORADO AVE.
22 March 1963	SANTA MONICA
Approved	CALIFORNIA
J. B. Munson	

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1.0   **IDENTIFICATION**

1.1   Title

Simulation Reset Routine (SIMRESET)
Ident: K10, Mod. 04

1.2   Programmed

W. Collins, B. Ciaccia, Lockheed Missiles and Space Division

1.3   Modified

December 1962, H. W. Houghton, System Development Corporation*
January 1963, G. A. Madrid, System Development Corporation

1.4   Documented

March 1963, P. T. Kastama, System Development Corporation

2.0   **PURPOSE**

SIMRESET will read a Reset Tape on one tape unit, only. Also, SIMRESET
will not check for record length errors.

3.0   **USAGE**

3.1   Calling Sequence

L	SLJ	4	RESET
L+1	ZRØ		A
	ZRØ		V
L+2	ZRØ		F_1
	ZRØ		L_1
.			
.			
L+1+N	ZRØ		F_n
	ZRØ		L_n
L+2+N	NORMAL RETURN		

*RESET was modified and documented by H. W. Houghton. SIMRESET is a special
-purpose modification utilized by the simulation programs.

where   A must   = 0 for read designated file(s) + file 1
                         (Reference Pool file)

            V   = vehicle number in octal

            F_n = file number. If 7 is used, all files will
                         be read. If A=3, 4, or 5, F must be equal
                         to 0.

            L_n = Starting location to read into. If F=1, L
                         is not applicable and will be disregarded as
                         the routine will place the information of
                         File 1 in the appropriate reference pool cells.

3.2   Input Parameter

SIMRESET requires that the Reset Tape unit number be placed in A.

3.3   Error Printouts and Output Parameters

Error printouts and explanations, and output parameters and formats are
unchanged. See TM-714/030/00 for a complete description.

4.0   METHOD

SIMRESET is identical to Reset with two exceptions. Upon entry to
SIMRESET, the tape unit number in A is stored in the RT cell, and the UNITS
Table is modified so that RESET will work with one tape instead of three.
Also, a check for record length error is removed. Other than these two changes,
the method is the same as described in the RESET Milestone 11, TM-714/030/00.
See Appendix A for a flow diagram of the modifications.

5.0   RESTRICTIONS

5.1   SIMRESET cannot be called upon to generate or write a Reset Tape, but
only to read one.

5.2   Since SIMRESET reads one tape three times instead of three tapes one time, there is excessive wear on the Reset Tape and use of SIMRESET should be restricted.

5.3   See TM-714/030/00 for further restrictions on RESET.

6.0   TIMING

SIMRESET does not significantly differ in timing from RESET. See TM-714/030/00 for a discussion of timing.

7.0   STORAGE REQUIREMENTS

	Decimal	Octal
Program	273	421
Constants	98	142
Printouts	16	20
Temporary Storage	2782	5336
Total	3169	6141

8.0   VALIDATION TESTS

SIMRESET was used to read several Reset Tapes for Files 1 and 2, using the following calling sequence:

```
        LDA     RT              RT=Reset Tape Unit Number
-       RTJ     SIMRESET
+       ZRO     0
        ZRO     0
+       ZRO     2
        ZRO     RESETBL
```

In each case, a dump taken of the RESETBL area in core agreed with a dump taken of the first two files of the respective Reset Tape. Subsequently, tracking data was generated correctly by the SIPSA tracking modules, SRGR and SRADTAPE, from the data on the various Reset Tapes.

9.0   REFERENCES

9.1   TM-714/030/00, General Purpose Satellite Computer Program Descriptions, Milestone 11, Generate, Update and Read the Reset Tape (RESET), H. W. Houghton, System Development Corporation, 4 December 1962.

9.2   TM-(L)-734/022/00, Computer Operating Instructions for the Simulated Input Preparation System for the Augmented SCF Environment at the STA and CPDC (SIPSA), Milestone 7, the Simulation Section, System Development Corporation, 1 February 1963.

APPENDIX A

Flow Diagram of Modifications to RESET

SIMRESET

Save Index
Registers 1 - 6

Modify Reset
Tape Unit
Numbers
SETRT
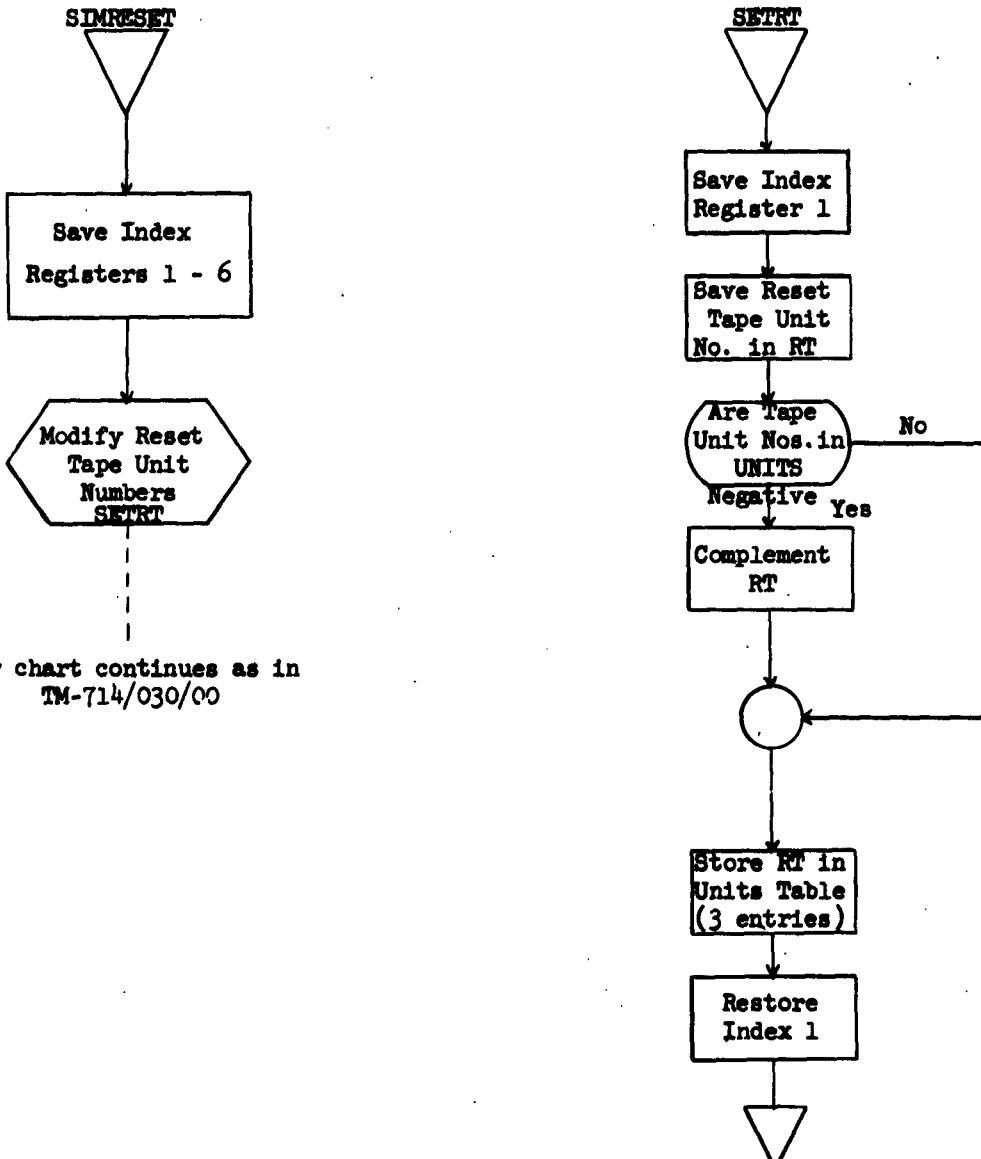
Flow chart continues as in
TM-714/030/00

SETRT

Save Index
Register 1

Save Reset
Tape Unit
No. in RT

Are Tape
Unit Nos. in
UNITS
Negative   No   Yes

Complement
RT

Store RT in
Units Table
(3 entries)

Restore
Index 1

Also, the record length error check was removed from the I/O routine in Reset.

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System Development Corporation,
Santa Monica, California
1604 SIMULATION PROGRAM DESCRIPTIONS
MILESTONE 11 SIMULATION RESET ROUTINE
(SIMRESET).
Scientific rept., TM(L)-734/029/00,
by P. T. Kastama. 22 March 1963, 7p.,
2 refs.
(Contract AF 19(628)-1648, Space Systems
Division Program, for Space Systems
Division, AFSC)

DESCRIPTORS: Programming (Computers).
Satellite Networks.

Reports that SIMRESET (Simulation Reset
Routine) will read a Reset Tape on
one tape unit.   Also reports that
SIMRESET will not check for record
length errors. States that SIMRESET
is a special purpose modification
utilized by the simulation programs.